

JACG

NEWSLETTER
Vol. 5 No. 12
Aug. 1986
Single Copy
Price \$2.00

THE JERSEY ATARI COMPUTER GROUP

On The Loss Of A Special Person

Frank Pazel, a very special person, has died. I only knew him for a short while, but, such was his character, that I considered him a friend. Our only contact was through JACG, yet we had occasions to talk about many other things that crossed our lives. I valued his judgment and marveled at his dedication. I was saddened by his illness and inspired by his energy in fighting it and filling his life with so many, so very many, exciting activities. If ever it can be said of a man that he lived a full life in the time given him, it can be honestly said of Frank.

His dedication to JACG is legendary. He took on the the 5 person job of doing the newsletter, and without complaint, with pride, he crafted it into one of the finest in the country. He ranted, he raved, he begged, he cajoled all of us to do our little part. And many, seeing his tireless effort, went beyond their own limiting inhibitions and contributed, making both themselves and the group better. Frank had a way of bringing out that little extra that lurks inside everyone.

I will miss Frank very much. My heartfelt sympathy, and that of all of JACG, goes out to his family in this time of mourning. Each of us cross paths with only a few very special people in our lives. Frank was one of those people.

-Dick Kushner, former JACG President



534-6349

JACG HOTLINE

534-6349

JACG Membership

The Jersey Atari Computer Group (JACG) invites you to become a member. Dues are \$20.00 per year (\$30.00 per year international; Mexico and Canada \$20.00) and entitle the member to: 1) Receive the monthly newsletter; 2) Purchase programs from the group's extensive tape and disk libraries at special rates; 3) Join special interest groups or form new ones; 4) Benefit from the expertise and experience of other Atari computer users; 5) Participate in group purchases of software at substantially reduced prices; 6) Receive a membership card that entitles the member to discounts at local computer stores; 7) Attend monthly meetings to learn about the latest hardware and software, rumors, and techniques for getting the most out of your Atari computer; 8) Submit articles and programs to the newsletter and give demos and presentations at the monthly meetings; 9) Participate in sale/swap activities with other members; 10) Access the JACG nationally famous Bulletin Board; and 11) Have a lot of fun.

Newsletters are sent third class mail. If you want first class mailing include an extra \$6.00 with your basic dues.

If all of this sounds good to you send a check or money order, payable to JACG, to:

Joseph Kennedy, Membership Chairman
126 Jupiter Street
Clark, NJ 07066

IN THIS ISSUE

The View From The White House-W.Martin.....	3
July Meeting Highlights-D.Noyes.....	4
AW + Printer Drivers-PACUS.....	4
Gem-S.Brause.....	5
PDG-J.Kennedy.....	6
Blazing Paddles:Review-E.Tomlinson.....	7
Mr.Fuzz Fuzzy:Review-E.Tomlinson.....	7
Atari Planetarium:Review-J.Kennedy.....	8
The Hard Facts-C.Weiss.....	9
Commodore 1350 Controller for Your Atari...12	
Usere Deutsche Verbindung-J.Kennedy.....	13
Keeping Time In Forth-R.Meyers.....	13
Computer Beauty III-D.Forbes.....	14
Noise From Noyes-D.Noyes.....	17
Atari Forth Lives-D.Noyes.....	17
Joke ?-D.Noyes.....	18

NEW TO THE ATARI?**NEED A LITTLE HELP?**

PRESS CTRL-CLEAR

SYSTEM RESET TO REBOOT

BOOT
ERROR...

##%&#!

SET OPTIONS NOW

**MAYBE A JACG
BIG BROTHER CAN HELP****GIVE US A CALL
201-469-6190**

**THE VIEW
FROM WHITE HOUSE**
The Presidents' Message.
by Bill Martin

HOT LINE TO THE PRESIDENT. - (201) 534-6349

This particular article is a very difficult one for me to write. It has been changed no less than four times in the past week in the vain hope that there would be something positive to report about our friend and Newsletter Editor, Frank Pazel's health. The cover of this issue tells the story far more articulately than I can. Suffice it to say that Frank had a "Class Act" and a spirit of commitment that may be impossible to follow. This edition of the newsletter is dedicated to his memory and is being produced by Secretary, Bob Mulhearn, and member, Dave Noyes; who have volunteered to fill in this month. Thanks also to Frank's cousin, member Sam Corey for his help in keeping me abreast of the situation.

If you have talents and are interested in taking an active role in the production of the finest, most recognized newsletter in the WORLD, please call me on the HOTLINE and give us a hand.

As you all probably know, the Communications Workers of America have settled their strike, however, we will still be meeting at the Mountain Lake's School through September of 1986. The prime reason is that our usual spot, at Bell Laboratories, is being refurbished.

We are also planning to welcome the return of Jerry Frese and his Atari Safari for the September meeting. Jerry and his wife Cyn gave birth to a healthy baby boy, William Benjamin, (6 lbs., 14 ozs. and 19.5 in.) on July 3rd, 1986. Our best wishes to our newest member and his family! For those who don't know, the Atari Safari gives members an opportunity to see demonstrations on various hard and soft ware in smaller, more personal groups. The idea is that the membership divides into as many groups as there are demonstrators. Each demo lasts from 10 to 15 minutes. The crowd, rather than the demonstrator, moves on to the next demo. Sounds confusing, but it works. Previous excursions have met with limited success due to the noise level that is

generated by 10 projects going at the same time, in the same room. At the school, each demonstrator will have his or her own classroom set-up. You WILL be able to hear what is going on. If you wish to do a demo of a product, program or procedure, contact Jerry Frese. Be sure to let the phone ring more than twice because he might be changing a diaper at the moment.

Our visitor from Germany at the last meeting, Michael Schuetz, left us with Turbo Basic from the Netherlands among some other goodies. This is a Public Domain program that is expected to revolutionize the programming world. He also left us some nice visual's for our library. We mailed him a few things to take home in return.

I received a note and a newsletter disk from another group in Germany called "Atari Bit Byter User Club e.V.". They are 270 members in Europe, Asia and South America that are begging to enter into correspondence with American Atari owners. The ABBUEV can be reached c/o Wolfgang Burger, Wieschenbeck 45, D-4352 Herten, West Germany. I'll place their name on our exchange list and their software in our disk library. If you have either the time or the inclination, drop them a line. There will probably be a great sea of software emulating from Germany because of the new found popularity of Atari computers there.

Attorney, Richard Semel, reports that the paperwork for our incorporation has just about been completed. By the time that you read this, the legalities should be over. Our next step is to apply for non-profit status which is expected to cut our mailing costs even more. Tying in with this, Secretary Bob Mulhearn reports that the Third Class status on our Newsletter netted us a \$200.00 savings in July. Way to go! The truth of the matter is that I'd rather cut costs than to raise the dues (even though I have the mandate) to \$25.00. No other club has done it and I feel that it would be too heavy a burden on some of our younger members.

The Atari show that I mentioned in last month's article is set for August 30th at Fordham University. "Show" is really the wrong word for it because it is actually a symposium on Atari software piracy. Names such as Trip Hawkins and the like are expected to attend.

MAKE ME GIGGLE TODAY DEPT.

There is a rather distant segment of people out there who attend every meeting but refuse to pay dues. Our first meeting at Mountain Lakes separated them because we sent out postcards to every member within 100 miles of the meeting giving detailed instructions on HOW to get there. Guess what was seen milling around the Bell Lab's site on the Saturday morning of the meeting? Maybe this will be the motivation needed to get them to join.

*This is your newsletter,
Please contribute to it!*

MARK YOUR CALENDARS!!
JACG Meeting Schedule
=====

September 13, 1986*
October 11, 1986

***These meetings will be at
Mtn Lakes High School**

JULY MEETING HIGHLIGHTS

D.B. Noyes - JACG

The meeting was held at the Mountain Lakes High School, no longer due to the AT&T strike, but now due to the contracting work being done at the Bell Labs Auditorium in Murray Hill. Attendance was the lightest in past memory; probably due to a combination of the alternate location, summer vacations, and Noah's deluge. There certainly was a little rain that morning --- but come on folks, ATARIANS are a hardy lot!

For the first time in recorded history, there were no questions asked during the question and answer period (therefore, no answers were given). President Bill Martin disseminated the latest ATARI gossip gleaned from COMPUSERVE; when is that \$99.00 32-bitter coming out Bill? All kidding aside, it was reported that INDUS has gone "belly-up", a company called Future Systems will honor INDUS's warranty --- for a fee. Steve Wozniak (formerly APPLE) and Nolan Bushnell (you all know of him) are combining in a venture. Should be interesting. It appears that CD ROM is back in ATARI's plans (always wanted one disk with every language known to man on it [and cross-referenced]). The 7800 game machine has been seen at Toys R Us, along with the new 2600. Activision has taken over Infocom (now ZORK on cartridge?), both companies will remain as separate entities, however.

Shree Vandenberg presented the current status of the treasury (Fort Knox it isn't); the issue of the Newsletter and its' self-sufficiency is alive again! Scott Brause wasn't in attendance, but the Bulletin Board is up and running.

Michael Schuetz, a visiting ATARIAN from Germany, displayed wares from Germany and some stunning computer artwork done by members of his computer club. Also demonstrated by Michael was a German PD basic faster than, and upwardly mobile with, ATARI BASIC. More on his visit by Joe Kennedy elsewhere in this issue.

Linda Peckham demo'd art on the ST with CAD 3-D and DEGAS. A prodigious amount of effort obviously went into her pictures. Absolutely stunning work!

Yours truly provided a trip through Printshop Companion, Broderbund's enhancement disk for the Printshop which greatly expands Printshop horizons.

Next meeting is August 9th, hope to see you there!

ATARIWRITER + PRINTER DRIVERS by Greg Porter

(Re-printed PACUS JUNE'85)

FUNCTION	PANASONIC KX-P1080	SMITH-COR D-100	EPSON FX-80
INITIALIZE EVERY LINE	(BLANK)	(BLANK)	(BLANK)
LF and C/R	155	155	155
UNDERLINE OFF	27 45 0	27 45 0	27 45 0
UNDERLINE ON	27 45 1	27 45 1	27 45 1
BACKSPACE	8	8	8
ENLONGATE OFF	27 87 0	27 87 0	27 87 0
ENLONGATE ON	27 87 1	27 87 1	27 87 1
BOLD OFF	27 70	27 70	27 70
BOLD ON	27 69	27 69	27 69
UP 1/2 LINE	(BLANK)	(BLANK)	(BLANK)
DOWN 1/2 LINE	(BLANK)	(BLANK)	(BLANK)
DOWN 1/2 LINE & C/R	(BLANK)	(BLANK)	(BLANK)
RETURN W/O LF	155	155	155
FONT #1 PICA	27 80	27 80	27 80
FONT #2 ELITE	27 77	27 77	27 77
FONT #3 CONDENSED ON	15	15	15
FONT #4 CONDENSED OFF	18	18	18
FONT #5 ITALICS ON	27 52	27 52	27 52
FONT #6 ITALICS OFF	27 53	27 53	27 53
FONT #7 SUPERSCR. ON	27 83 0		27 83 0
FONT #7 PROP. ON	---	27 112 1	---
FONT #8 SUBSCR. ON	27 83 1	---	27 83 1
FONT #8 PROP. OFF	---	27 112 0	---
FONT #9 SUB/SUPER OFF	27 84	---	27 84

ATARIWRITER + PRINTER DRIVER by Randy McSorley

(Re-printed PACUS JUNE'85
NEC 8023)

INITIALIZE EVERY LINE	(BLANK)
LINE FEED & C/R	155
UNDERLINE OFF	27 89
UNDERLINE ON	27 88
BACKSPACE	(BLANK)
ELONGATE OFF	15
ELONGATE ON	14
BOLD OFF	27 34
BOLD ON	27 33
UP 1/2 LINE	(BLANK)
DOWN 1/2 LINE	(BLANK)
DOWN 1/2 LINE & C/R	(BLANK)
RETURN W/O LINE FEED	(155)
FONT #1 PICA	27 78
FONT #2 CONDENSED	27 81
FONT #3 PROPORTIONAL	27 69
FONT #4 UNDERLINE ON	27 88
FONT #5 UNDERLINE OFF	27 89

Randy uses fonts #4 and #5 for underline on and off so that he can underline strings without breaks between words. Using the normal ATARIWRITER underline, spaces aren't underlined.

ATARIWRITER + PRINT DRIVERS by Bill Lurie
(Re-printed LA-ACE JULY'86)

FUNCTION	PROWRITER	LEGEND 1080	BMC-BX80
Initialize every line	blank	blank	blank
Line feed & CR	155	10	10
Underline off	27 89	27 45 0	*
Underline on	27 88	27 45 1	*
Backspace	08	08	*
Elongate off	15	27 87 0	*
Elongate on	14	27 87 1	*
Bold off	27 34	27 72	*
Bold on	27 33	27 71	*
Up 1/2 line	blank	*	*
Down 1/2 line	blank	*	*
Down 1/2 line & CR	blank	*	*
Return w/o line feed	13	*	*
Font 1 PICA	27 78	27 88	use FONT 3
Font 2 ELITE	27 69	27 77	n/a
Font 3 Reset to default	15	27 64	*
Font 4 Normal c.s.select	n/a	27 82 10	n/a
Font 5 Proportional on	27 80	-----	-----
Font 6 Cond on	27 81	27 33 4	15
Font 7 Cond off	unused	unused	146
Font 8 Italic c.s.select	n/a	27 82 19	27 52
Font 9 Italic off	n/a	unused	27 53

* INDICATES CONTROL CODE IS SAME AS ONE TO LEFT

Chipmunk

Atari Disk Copier

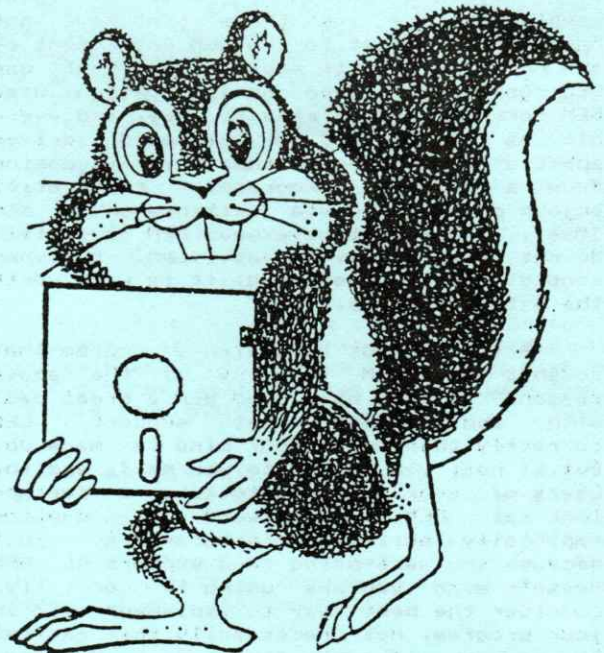
- Unprotects hundreds of copy-protected software programs
- Protects against accidental loss of expensive software
- No hardware modification
- Works on any disk drive
- Unprotected software will run on disk drives that original software won't
- Includes undelete, unlist, and autorun utilities
- Chipmunk is not copy-protected
- Only Atari program of its kind

To order, please send a check or money order made out to Microdaft. For a list of software programs that Chipmunk unprotects, send a stamped, self-addressed envelope.

microdaft

19 Harbor Drive
Lake Hopatcong, NJ 07849

\$34.95



GEM

Scott Brause-JACB

Why do we need this thing anyway? When I first saw the ST a year and a half ago, it was a magnificent vision. Think of it, a computer just like the Macintosh (but better) that cost a full two thousand dollars less! Below I am going to make several references to the Macintosh only because it has already proven itself and serves as an excellent example, the only

example that can be used. Since my first encounter with the ST, my vision has faded. Not because of the cost or the quality of the hardware. The ST is a fine machine, in almost every respect as promising as the Macintosh. The price is right, the hardware design is good, but what about the available software? There may be plenty, and it may be of a good quality. But does it work with GEM? GEM, why do we need GEM you may ask? To me, the ST was very appealing, because in monochrome mode, it looked just like the Macintosh but didn't have the price-tag or hardware limitations of one. The reason for the Macintosh like look, of course, is

GEM, the Graphics Environment Manager. However, many developers are not taking advantage of GEM for several reasons. Either they are too lazy to use the operating system as they should, or they think that they have a "better way." The latter would seem permissible at first. But is it? Many people, programmers and non programmers that have not been heavily

exposed to the Macintosh, may feel that to bypass GEM may just be for the good of everyone. After all, doesn't it take longer to execute common commands using GEM? Isn't GEM too user friendly, making the user feel like an idiot? This is really not the case. GEM provides things that are very valuable to the ST. These are consistency, professionalism, and ease of use (just to name a few).

On the Macintosh almost every program uses the toolbox routines to create the standard user interface. Those that haven't, have quickly perished (or have been ignored). It is nice to be able to jump from application to application without relearning a new set of commands. I have yet to read a manual for any program

I have purchased for the Mac (except flight simulator). Every computer has public domain programs. But if you take the Atari 8 bit line for instance, you will see a great difference in the quality (or perceived quality) of public domain software, and a great deal of it may not be easy to use. A standardized user interface may make it harder to produce these programs, but once they are finished even the worst have a professional look, and are easy to use. The old saying "you can't judge a book by it's cover" definitely applies here. However, if you can't figure out how to open the cover to read the contents then the book is useless.

By far the biggest complaint from

users is that when trying to be "user friendly" software tends to be clumsy to operate, or takes more time to perform functions that might be more easily done with keyboard commands. Many of these complaints come from those that have not had time to adjust to the GEM environment or are not working with applications that use GEM correctly. When an application uses GEM correctly it is easy to use, and every bit as quick as a keyboard driven application. Remember that this is coming from a computer programmer that still enjoys programming via switches on an old IMSAI. Those that have used GEM and still do not like it, may be justified. But when consistency is considered, it is well worth the extra "trouble."

Are you about to design a program that doesn't use GEM for any of the above reasons? If you have used GEM a great deal with applications that support GEM correctly then maybe your mind is made up. But if not, you owe it to yourself, and the users of your program to take a further look at GEM. One word of caution especially suited to programmers, just because you are using and supporting GEM doesn't mean you are using it correctly. Consider the best way to implement GEM in your program, not necessarily the easiest to program. I just finished a GEM user interface that took three months to get "perfect." Finally, for designing an ST application using GEM, I would suggest as required reading the Inside Macintosh User Interface section.

PDG

by Joseph S. Kennedy

Writing last month's column was so much fun (remembering some of the old games from the Dark Ages [1981-2]), that I thought I'd do it again this month, and look at some mysteries. Just like last month we're going way back to almost the beginning of time, or, at least to the JAGG program library disks Volumes #002 and #003, for our programs. After all, Michael Fox isn't the only one who can go Back to the Future!

Our first mystery is CLEWSD on Volume #002 Games #002. Here you play the part of that bumbling detective Inspector Clewso. It seems that Bill, Mary John, Suzy and Paul were house guests for the weekend. Unfortunately one of them was a very ungracious guest since their host was slain (perhaps I should say fortunately, since if the host isn't murdered there's no story). Your job, of course, is to determine where the host was slain and who 'dunnit'. As if your job isn't hard enough the murderer will occasionally lie to you to set you off his or her scent. You ask questions of the suspects by entering the number of the question from a menu. The game is not unlike the old standby board game Clue. Like Clue there is a new

solution each time you play the game. Just a few hints. If someone claims that their host was already dead or still alive then you have found the room where the murder took place. COPY the MAP of the house. You will need to refer to it for the different rooms and how they interconnect. Record your questions and answers on a pad. And, if you're totally baffled, tell the computer and it will give you the solution.

Our next mystery is that of lost treasure on a deserted island in TREASURE on Volume #003 - Games #003. On the island are woods, mountains, a cave, a bluff and an oak tree. Surrounding the island is sea water. But it's not that easy; there's also a pack of marauding sharks waiting for you to lose your footing and be just in time for lunch. You move one square at a time by entering the direction that you wish to go: N, S, E or W. You made one

mistake, before you left on this mission you bought a cheap compass. It's accurate only 80% of the time. The other 20% of the time you'll move diagonally either left or right. With each move you'll be told the type of terrain you're travelling through. If you fall into the ocean you will be placed back on the island at the spot where you fell off. IF you don't disturb the sharks. The first time you fall into the ocean there is a 20% chance of disturbing the sharks; the second time it's 70%; the third time it's bring on the salt and pepper for the sharks! The map aids you in determining where you are but you cannot be exactly sure because of that cheap compass you bought. The program suggests that 15 moves should be sufficient to find the treasure. I've done it in 6 more by knowing where I am and less by dumb luck. You are placed randomly on the island at the beginning of each game.

Our next Mystery is one of position in DOGGIES on Volume #002 - Games #002. The object of this game is to put the light colored dogs where the dark colored ones are and vice versa. You select the dog you want to move by placing a bone underneath it with the joystick and pressing the fire button. The dogs will only move to the empty space if it is next to them or at most one dog away. The program states that a complete change can be done in 15 moves. The graphics are still cute and the way the dogs impatiently call you to move them add to this program for adults and kids.

Well that's it for this month. The only mystery left is why don't you use the disk library; more particularly: the oldies but goodies that are on the early disks and yet still offer hours of computer fun.

```
*****
*           J           *
*GIVE A BIT!!*
*           C           *
*           B           *
*****
```


GEMINI

WILL BEAT ANY PRICE!

ADVERTISED IN LAST
30 DAYS IN VALID AD!

267-0988

86 RIDGEDALE AVENUE
CEDAR KNOLLS, NJ

Blazing Paddles
Baudville
\$34.95

Blazing Paddles is a new drawing program for the Atari computers. It has many of the same features found in the more popular programs, but it improves on them in many ways.

To begin, Blazing Paddles can be used with a joystick, paddles, the Koala touch tablet, or a light pen with a button. After selecting your drawing device, you are shown a screen very similar to the Koala Pad or Atari touch tablet software. All of the options are displayed within a box which contains both a one word description of the option and an icon to go along with the word. Blazing Paddles has four horizontal rows of these boxes, two on top of the screen, and two at the bottom of the screen. The center of the screen displays the center the picture you are working on. To select any option you move a cursor around the screen and press the button when you are on the option you wish to use.

The standard features include hollow or filled boxes, hollow or filled ovals, freehand drawing with several different brushes, lines, dots, magnify, and spray paint. There are some extras that make this program better than some of the other drawing software. One option is the ability to add text to your picture. The program has three sizes of standard text, and you may also load different fonts to add to your picture. A couple of sample fonts are included on the disk. The program also has a shapes option. This allows you to load pre-designed shapes, and add them to your picture. The shapes can be rotated or

inverted before you add them to the picture. The program comes with building shapes, musical shapes, and several others such as a car, a truck, a men, a cow, etc.

The program allows four colors, three for drawing and one as a background. You can change any color to one of the 128 available. You are also allowed another color which is a mix of any two of your other four colors, and your choice of a pattern. Another very nice feature is the ability to print your artwork. Blazing Paddles supports the Epson, Okidata, Gemini 10X and 15X, Panasonic, and the Okimate 10. One other unique function is the undo key. By hitting break when you are editing your picture, whatever you did last will be undone.

The pictures saved are standard 62 sector files which will look perfect when loaded with Micropainter. The program also comes with a BASIC program that you can use to load the pictures from BASIC.

The manual that comes with the Atari version is a Commodore manual with a pamphlet explaining specific information for the Atari. Between the two booklets, you have all of the necessary information to get you going. As with most excellent programs, the manual will rarely, if ever, be needed.

Blazing Paddles is a very well done program. The program has many nice features and the fill routines are the fastest I have seen. Overall, I highly recommend this program.

Mr. Fuzz Fuzzy/Phantom Sector Maker
Computer Software Services
\$29.95

I eagerly ordered this program advertised in Antic, which promised to write Fuzzy/Phantom sectors on an unmodified disk drive. It claimed that these sectors are uncopiable by any hardware modification.

As I opened up the package I realized I was going to be very disappointed. The documentation was two sheets of paper. Reading the paper, I finally determined that I had wasted my money.

The paper went on to say that I should load the program. It would then prompt me for the sector I wished to fuzz. The disk drive would then begin a series of read/writes. At this point, you should lift the disk drive door open very slowly until you reach a point between good read/writes and no read/writes. The program would then double check to make sure you wrote a fuzzy sector. Bad memories of the distant past came to mind.

I experimented for an hour. The results were 2 bad sectors and no fuzzy sectors. I couldn't really give the program a totally fair chance since I don't own all of the different disk drives available. I did all of my work on an Atari 1050 and an Atari 810. I don't think the results would be too much better on other drives, though.

I am still not sure whether a fuzzy sector is possible, and if it is, whether it is copiable. I will probably never find out either, since I am not about to waste any more time with this program.

ATARI Planetarium

Reviewed by
Joseph S. Kennedy

WOW!!!

That just about sums it up. Atari has hit the jackpot with their new program, ATARI Planetarium. This program allows you to do things that you couldn't experience without a computer. It also allows you to do things that would have taken you a lot longer to learn without the program. The best way to start describing ATARI Planetarium (AP) is to give a brief outline of how you start the program. First, you must have an XL or XE, as the program requires at least 64K. Boot the program with basic; after the program is loaded flip the disk over, as the reverse side has all the data on the astronomical objects. Next you must enter the latitude and longitude of the spot from which you wish to view the sky. The program provides a map of the world, and you just move the cursor with the joystick to that site. I found, however, that it was easier to simply move the site data with the arrow keys to the proper latitude and longitude (which was determined before hand from a road map). After entering the site data you must enter the time at which you want to see the sky. Here's where AP begins to shine, you can enter any date and time from 9999 BC to 9999 AD. The program automatically adjusts the calendar according to the year selected (including those elusive ten days in October 1582 AD). After entering these parameters, you are ready to look at the sky.

When viewing the sky you have many options to choose from. You can have the constellations named. You can have lines connecting the stars of a constellation. You can have deep sky objects displayed, if you want. You can even have the symbols for the various planets displayed. The field of view defaults at a 72 degree angle (the widest available) but you can easily change it to as narrow as 9 degrees if you wish. For comparison, the Big Dipper is about 25 degrees in width; thus at the narrowest setting you could see less than one-half of the Big Dipper.

More importantly, you need to know what you're looking at; so just center the cursor over the object in question, and press the HELP key for a brief description of the: solar system, 88 constellations, over 1200 stars and over 300 deep sky objects. You can also have AP locate these objects for you if you wish by pressing the START key.

One potential problem is that my extension cords do not reach to the spot in the yard where I use my telescope. But AP comes to the rescue again. You can print out any screen by pressing CONTROL P for Epson printers or SHIFT P for the XMB01 printer. (My Panasonic KXP 1090 which is supposed to be Epson compatible gave an extra line feed with each line in the Epson mode but printed just fine as an XMB01). When printing out the sky for backyard viewing the Chart option comes in handy. With the chart option you can print out

personalized star charts for your location, with time of viewing complete with right ascension and declination lines for reference (see figure 1). With these charts I was able to locate Saturn and Uranus in my telescope in just a very few minutes.

But wait, AP is more than just an aid for the backyard astronomer! (That's right folks, with each order a free set of steak knives.) As I mentioned above you can look at the sky at any time between 9999 BC and 9999 AD. By setting various dates you can see astronomical phenomena that no living person will ever see in one lifetime, such as the changing of the pole star due to the earth's precession (see figures 2 and 3). You can view past eclipses or preview predicted ones.

As in all love affairs (and I think that this is truly a case of love at first sight between me and my AP), there are some rough spots. The first is upon booting up. AP is written at least in part in BASIC but nowhere in the manual is this mentioned; so naturally I held down the OPTION key when I first booted up. It took a few tries before I realized what had happened. Secondly, nowhere in the manual does it tell you that you cannot have anything plugged into joystick port two. It took several tries before I realized that my Koala pad in port two was causing a problem. Thirdly, the printer driver does not always recognize that your printer is ready and waiting. When this happens you must continually hit the RESET button then the SHIFT P until the program recognizes your printer. I also experienced my first printer time out (even though I'm using a Panasonic printer). But my biggest gripe is that the authors of the program did not allow for resetting the default parameters of location and time at the start of the program. It is annoying, to say the least, to have to change the site parameters and date (including year) each time one boots up. I hope that a good sector editor will allow for at least a change of the defaults for the site. But now that the gripes are out of the way, read the next paragraph.

The ATARI Planetarium is one of the reasons I bought my Atari four years ago. No that's not as strange as it sounds. I bought the computer to do things I couldn't do without it. AP is a perfect example of a program that allows you to do things you couldn't do without a computer - look into the future and the past, or prepare personalized star charts on a daily basis. What's more, this is truly power without the price - Before the July meeting I bought the program from one of our vendors for \$24.95. That's less than Pacman was when it came out. Let's give Atari credit for giving us good quality for the price. And let's hope to see more of the same from Sunnyvale in the future. Thanks ATARI for a great product!

GIVE A BIT!!

Figure 1.

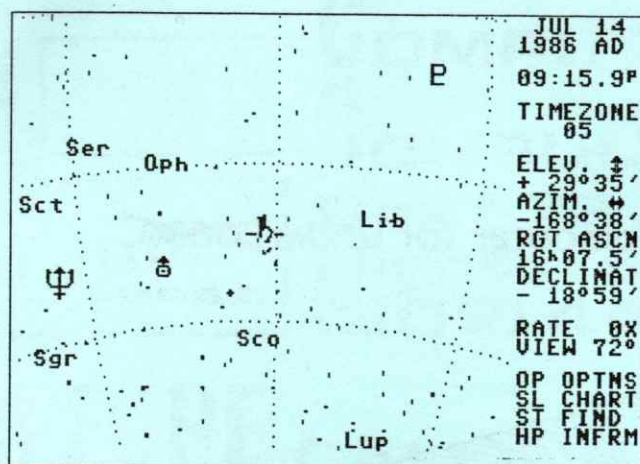


Figure 2.

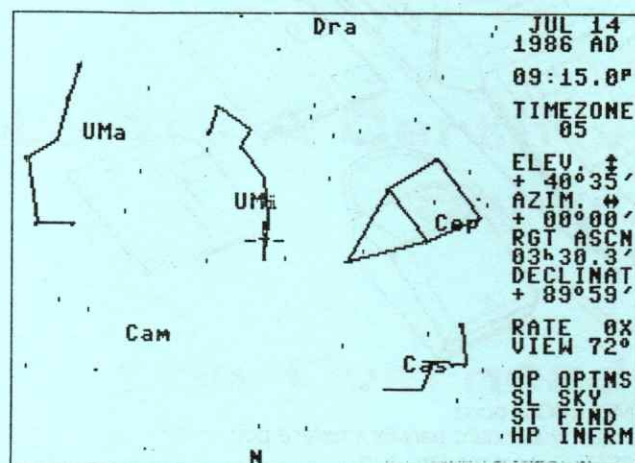
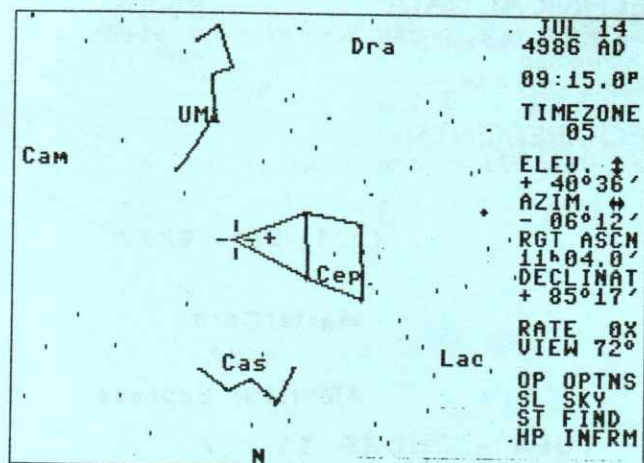


Figure 3.



THE HARD FACTS

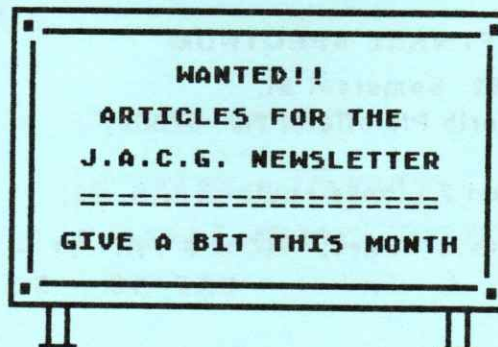
by Corey Weiss

Computer hardware is thought by some to be magical. Many users run programs, write programs, but haven't the vaguest idea what goes on inside the "black box". The subject of semiconductor or electronic hardware, which is rooted in solid state physics, is what I intend to explore in this column.

I invite all JACG members to call me to ask any hardware related questions, or, just to suggest what you would like to see discussed every month in this column. You may call me at 201-247-0429 (dictate message if I'm unavailable). Ideas for topics can range from logic design and Boolean algebra to photoetching, etc. Eventually I'd like to compile a file of ATARI hardware projects; anyone else interested? This month, however, I will discuss one of my latest projects: a 64K printer buffer.

AtariWriter along with other programs such as Print Shop, have allowed my printer to commandeer my XL for what seems like hours on end. To my delight Radio-Electronics magazine featured such an elegant circuit last August, that I had to build it. The Z-80 based printer buffer claimed not only to free a speedy computer from a slow printer, but also to accept either serial or parallel data; and output that data in either serial or parallel form (eliminating 850 interfaces). The buffer can also convert Commodore's non-standard code to regular ASCII. That's a lot of hardware freedom. In addition, the buffer also can be used as a Z-80 development system and, with the EPROM option, it can read, program, and duplicate 2716, 32, and 64 EPROM's.

All this magic happens on a 6"x5" PC board populated by 1 Z-80 microprocessor, 8 4164's (memory), 1 custom EPROM (contains instructions for the Z-80) and 17 supporting logic chips. I finished almost all the soldering, next it's on to creating the cables, mounting the board in a handsome box and finally the smoke test. The project will be complete in a couple of weeks and tested thoroughly by the September 13th meeting. Expect a live demonstration at that meeting. Kits or bare PC boards are available and I will discuss this at the meeting for anyone interested. Hope to hear from you. See you next month.

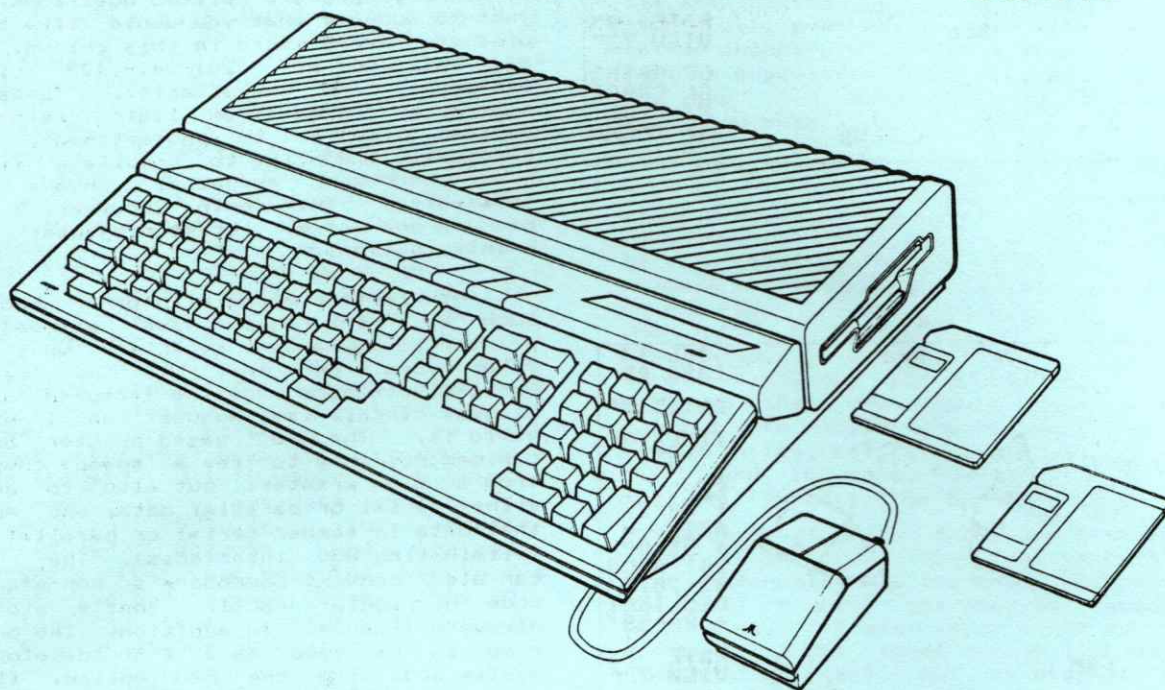


1040ST™

Personal Computer System

The Only One Megabyte Computer for under ~~\$1000~~

\$800



FEATURES:

- Integrated CPU, keyboard, disk drive design.
- 1,048,576 bytes RAM.
- 196,608 bytes ROM.
- Built-in Operating System (TOS).
- Full-stroke, 94-key intelligent keyboard.
- 3 1/2" double-sided, double-density disk drive, 720 kilobyte storage capacity (formatted).
- Two-button mouse.
- Sound generating capabilities—3 voices from 30 Hz to above audible range.
- 512 colors.
- Selectable graphic resolution:
 - 640 x 400 monochrome.
 - 640 x 200 x 4 colors.
 - 320 x 200 x 16 colors.

- Midi In/Out ports.
- Industry standard parallel interface port.
- RS232C serial modem port.
- Floppy disk port (including controller) for 2nd disk drive.
- Hard disk port.
- ROM cartridge port.
- Mouse and joystick ports.

TECHNICAL DATA:

- MC68000 microprocessor; 32-bit internal, 16-bit external architecture.
- Clock speed 8 MHz.

REQUIREMENTS:

ATARI RGB or Monochrome Monitor.

SOFTWARE SPECTRUM

382 Somerset St.
North Plainfield, NJ 07060

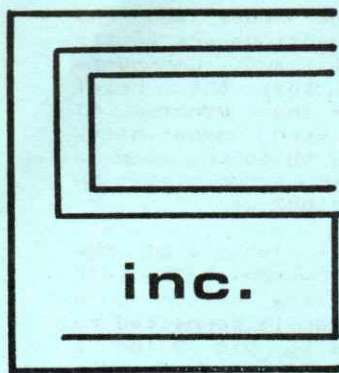
(Just 7 blocks south of U.S. 22)

Store hours: **MON & FRI 11 - 6**
SAT 10 - 5

(201) 561 - 8777

MasterCard
VISA
American Express

TUES - THURS 11 - 7
CLOSED Sundays

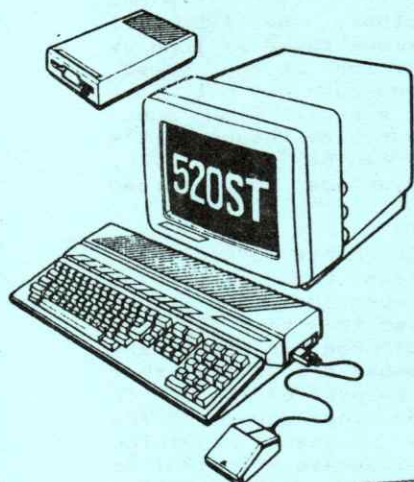
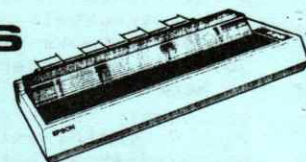


**COMPUTER SYSTEMS
CONSULTANTS, INC.**
Box 873, 897 U.S. RT. 130
Hightstown, N.J. 08520
(609) 448-8888/9

**BEFORE CALLING US, CALL AROUND
THEN CALL US FOR LOWEST PRICE!**

**We Are A Certified Atari/Epson
Service Center/Dealer**

Low Overhead = Low Prices



- 520 ST color or mono
- 1040 ST color or mono
- ALL EPSON Printers
- ST Software
- Peripherals
- Cables, etc.



**visa-m/c
9 am - 5pm
mail orders**

The
COMMODORE
1350 CONTROLLER
for your
ATARI

(Or, the Mouse that Jack Built)

Jay Pierstorff

Reprinted from the Livermore "REPORTER"

There has been much talk of mice and mouse controllers lately. The new Atari ST's come equipped with their own mouse...(mice?)...meeeces?. Anyway, those of us who have an Atari of the 8-bit persuasion have watched with great envy, wishing we too, could have mice. Even if we could buy an ST mouse for our 8-bitters (which we can't) it wouldn't work with our existing joystick (sic) programs. Sure, we'd all love to have an Atari ST. But my 130XE's library is bigger than the ST's and more important, it's paid for. Atari is rumored to be introducing an 8-bit mouse, but it is not confirmed at the time this article is being written.

Mouse envy persists. I found myself wandering the aisles of the computer stores. Suddenly I noticed a Commodore product beaming through the glass. "The Commodore 1350 Mouse for the C128" was printed on the package. The price was less than \$50. Those lucky 128 owners! Too bad Atari hasn't made one for their computers.

The C128 Commodore is an upwardly compatible to the C64 computer. That means that any software that worked on the 64 will also run on the 128. the C64 and the Atari's have been real friendly about using the same joystick varieties. Would this...could this...might this mouse work with a trackball or mouse driver program? The plug looks very much like a standard joystick connector. I bought it and took it home.

I could tell my Atari 130XE was nervous about the whole works, but undaunted, I loaded a trackball program, plugged in the mouse...but wait, the plug would not stay in! Upon close examination of the connector, I discovered that it was about 1/8 of an inch too short to reach the connector pins. (Commodore computers don't recess their joystick ports quite as much as Atari). I was puzzled for a moment and then I thought about using a joystick extension cable! Ha! I quickly plugged one end into joystick port 1 and the other end plugged perfectly to the mouse. With trembling fingers I slid the mouse across the desk, and then...nothing. The cursor was on the screen but the mouse yawned. It would not control the cursor, not even a little. Now what...I tried to think, maybe it would work with a Koala or Touch Tablet program! I booted and failed.

Maybe it was a "joystick emulator!" A joystick in mouse clothing! I loaded the graphics editor of the Print Shop, IT WORKED! IT WAS A JOYSTICK EMULATOR ALL ALONG! Suddenly, it occurred to me I should probably calm down. I got down of the computer table and tried a few more programs. Everything that would normally run with a joystick, was working with this imitation mouse.

A comparison of the mouse and the Atari port shows the connections are mostly compatible with Atari and Commodore joysticks. Interesting that the brief mouse instructions made no mention of Joystick emulation or even compatibility with the C64! Strange thing to keep a secret! Especially for companies in business to make money (right Jack?).

The only non-workable feature of the 1350 Mouse is the right button. The left button is the standard "fire" button on a Joystick. The right button is connected to pin 9. The Atari looks to pin 9 for a potentiometer reading like a paddle controller would produce. But since there is no paddle emulation in the mouse, the right button is invisible to the Atari's OS. Oh well, one doesn't miss what one never had. If Joysticks were meant to have two buttons...well you know what I mean.

The Commodore Mouse is very usable. Even though your computer thinks it's a joystick, you will think it's a mouse! It really does an amazing job of convincing you! It feels good in your hand and moves smoothly across any flat surface. A clean desk or a "mouse pad" will give best results. A mouse pad is a rubber backed thin cushion that gives more control over mouse movements. For mouse maintenance, the rubber coated steel ball can be easily removed for cleaning.

the 1350 Mouse is different from a true optical driven mouse. A true mouse has proportional control. The faster you move the mouse, the faster the cursor will move. The 1350 mimics this action but it can't move the cursor any faster than a joystick would. Slower cursor movements are imitated by the mouse delivering short, stop and go pulses to the computer.

A true mouse will always take the same desktop travel to move the cursor from one screen edge to the other. The 1350 will move the cursor at maximum speed as long as the 1350 is in any motion at any speed. That means a fast, long push may not move the cursor as far as a short, slow push! That's not really a problem though, it's just a difference that can be worked with. It can even be an advantage for limited desktop space.

The Commodore 1350 Mouse worked with all games and programs that require a joystick. Some are improved by the mouse and some are more suited to joystick control. The type of programs that are best suited to the mouse are those that require precision movements of cursor or gunsight centering on the screen. The least suited are the programs requiring continuous scrolling movements. They often require picking the mouse up and starting again if you run out of counter space. Drawing and doodling programs worked fabulous. Kronis Rift scores improved markedly, Rescue on Fractalus was confusing! Donkey Kong was ...different! It just depends on the type of movement involved. Many games took on a whole new feel when played with the mouse. Many were even more fun with a mouse than with a joystick!

Do you really need a mouse? Yes you do! If you own and use a joystick, you will definitely enjoy using a 1350 mouse. I wouldn't part with mine. Don't throw your joystick away yet, but mine is seeing less use since I let the mouse in the house! The Commodore mouse is not just for the C128 anymore! It's one of the best darn joysticks since the old Atari licorice stick!

Unsere deutsche Verbindung

by Joseph S. Kennedy

Those of you who were at the July meeting at Mountain Lakes High School had a real treat; those who weren't missed something great. Michael Schuetz from the Atari User's Group Brainwave in Wiesbaden, West Germany gave us an insight into Atari in Europe and more specifically West Germany. He described the 520 ST+ (1040 without disk drive) which is rated the number one personal computer in Germany over the IBM PC-AT and PC-X, Macintosh, IIe, etc. In the home computer market the 130XE is number 3 and moving up, while the 260 ST is 4 and the 800 XL is 10. The Commodore 64 and 128 are respectively 1 and 2.

Brainwave is group of twenty enthusiasts who meet every Friday night in their homes. They must be doing something right. They are on the Atari mailing list and receive all news releases from Atari as well as invitations to the various computer shows in Germany. We could use some that kind of user group support in the US.

However, Michael's talk was not the only impressive thing he had for us. He showed us a series of computer art prepared in the main by Oliver Saalfeld, another Brainwave member, that was dazzling. He also brought along Turbo BASIC which was published by Happy Computer (one of the German computer magazines). Turbo basic is a faster BASIC than Atari BASIC. It also includes several new commands such as:

DIR - disk directory

As well as many other disk functions which can now be accessed through BASIC.

PROC - Names a procedure which can be called like a GOSUB.

DUMP - lists all variables used.

DPOKE/DPEEK - Performs a double byte POKE or PEEK.

As well as: CIRCLE, PAINT, TIME\$, INSTR, etc. This is what ATARI BASIC should have been! Best of all, it's compatible with files written in ATARI BASIC, so maybe this should be your BASIC. Turbo BASIC, all the pictures Michael showed us, the joystick/mouse operated calculator for the 8-bits, and more will be in the public domain library thanks to Michaels' generosity. You can be sure that Turbo BASIC and some of the other programs will be a part of a future PDG column.

Should you like to correspond with Michael his address is as follows:

Michael Schuetz
Fritz Kalle Strasse 26
6200 Wiesbaden
West Germany

And just in case you were wondering, the title of this article refers to Michael as "Our German Connection". Once again, thank you Michael for a thoroughly engrossing introduction to Atari computing in Germany.

```
*****
*           J           *
*GIVE A BIT!!*
*           C           *
*           G           *
*****
```

Keeping Time in FORTH

By Robert G. Meyers

Most of the programs I write that work seem to be side-effects of others I never get to work at all. This program is a case in point. I was working on a graphics program with large numbers. I could have used a floating-point package, but I have resisted learning it on principle. For one thing, I hear it is slow (I don't know since I haven't used it). But mainly it reminds me of BASIC which is the antithesis of FORTH. To use floating-point routines would be like using oil paint to create watercolor effects.

The routines presented here were written as an exercise in using large numbers with fixed-point notation. They keep time for you while you are working in FORTH. They are written in ValFORTH.

The program also illustrates an advantage of FORTH over languages like BASIC. Once compiled, FORTH programs are co-resident in memory and can be called up as needed. No matter what you are working on, typing TIME will give you the time. In BASIC, you would have to save the program you are working on, load the timer, read it, then reload the original program. Or you could list it to the end of the program and GOTO it. Either way, it is more trouble than the FORTH equivalent.

(TIMER 25JUN86)

```
: 2VARIABLE
  <BUILDS 4 ALLOT DOES> ;
2VARIABLE SECS
: INIT 21 18 00 0 I C! LOOP ;
: STOTAL
  18 C@ 256 * 256 U*
  19 C@ 256 M* D+
  20 C@ S->D
  D+ 60 U/ SWAP DROP S->D ;
: STARTTIME ( hrs,min,sec-- )
  INIT SWAP 60 * + SWAP 3600
  U* ROT S->D D+ SECS D! ;
: SHOWTIME
  3600 U/ SWAP 60 /MOD ROT ;
: TIME
  STOTAL SECS D@ D+ SHOWTIME
  DUP 12 > IF 12 - ENDIF
  . . . ;
```



```
: STARTEDAT
  SECS D@ SHOWTIME . . . ;
: ONLINE
  STOTAL SHOWTIME . . . ;
```

The program works by reading memory locations 18, 19 and 20, the Atari's system timers. 20 counts from 0 to 255 every jiffy or (roughly) sixtieth of a second; when it reaches 0 again, 19 increments by 1. When 19 recycles, 18 increments by 1. Location 18 recycles after 256*256*256 jiffies.

Since the standard 8-bit numbers of FORTH only go to 35675 (or 256*256 in unsigned numbers), we cannot simply add the values in these locations. FORTH solves the problem by using two bytes to store one number; this is the double number. 2VARIABLE is a variable type for double number variables. SECS will store the number of seconds into the day when you initialize the program. INIT initializes 18, 19 and 20 to start counting at zero. STARTTIME calculates the seconds into the day and stores the value in SECS. To use it, enter the hours, minutes and seconds then STARTTIME, e.g. 4 41 21 if it is 4:41:21. STARTTIME multiplies the minutes by 60, adds this to the seconds, then adds the result of multiplying the hours by 3600. U* multiplies two unsigned numbers, leaving a double number. Note that ROT is needed after U* in order to jump the number of seconds over the two 8-bit values of the double number result of U*. (S->D changes this number to a double.)

STOTAL calculates the number of seconds that have elapsed since the timer locations (18, 19 and 20) were set to 0. M* takes two single numbers and leaves a double -- hence it is mixed. The result is divided by 60 using U/ to leave the seconds. Note that U/ leaves both the remainder AND the quotient on the stack (unlike / which leaves only the quotient); thus SWAP DROP is needed to get rid of the remainder.

After you have initialized using STARTTIME, TIME will give the current time (approximately since the counters do not increment by exactly 1/60th of a second). It adds the seconds in STOTAL and SECS, dividing by 3600 to give the hours and by 60 to give the minutes and seconds as the quotient and remainder of /MOD. The rest of the routine adjusts the time if the hours are greater than 12. (If you are on board

ship, you might leave this out to give the time on the 24-hour scale.)

Two other routines are included for interest. STARTEDAT gives the time you initialized the timers; this would be the time you started if you used STARTTIME right after booting. ONLINE calculates the hours, minutes and seconds since initialization.

By the way, I still haven't gotten the program I was working on initially to work.

FREE SAMPLE OF BOOK ON DISK

As a means of introducing this soon to be available software product, we are giving away a certificate redeemable for one free copy of this new interactive text product to anyone who fills out a market survey questionnaire.

FOR DETAILS: Send a SASE to

SELEX
Dept. JACG
10 Carlisle Dr.
Livingston, NJ 07039

Computer Beauty III

by Donald Forbes -- JACG

You can create beauty with your computer by combining form and color.

The color wheel provides the best guide to the harmonious use of color. You can also do experiments to create different color tones by using Wilhelm Ostwald's color triangle by combining: black and tint, white and shade, or hue(color) and gray.

	tint	WHITE
HUE	TONE	gray
shade		BLACK

As you know, the primary (RED, BLUE and YELLOW) and secondary (green, orange, purple) colors of pigments combine to give black:

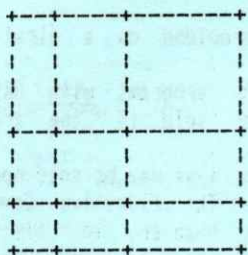
RED	BLUE
purple	
BLACK	
orange	green
YELLOW	

On the other hand, the primary colors of light (as on your television screen) combine to give white:

GREEN RED
 yellow
 WHITE
 sky blue magenta
 VIOLET

With some rules for shape and color, the third part of the puzzle now becomes: How do we combine them?

There is a simple answer in two dimensions. You will have to find (perhaps in an art store) some 8x8 sheets of glossy paper in the three primary and three secondary colors. Cut each into nine pieces starting at 1 1/2 and 4 inches from the bottom left corner. Then mix and match according to the rules of the color wheel, starting with maximum contrast and then decreasing to minimum contrast. Here is the diagram:



You can also rearrange the rectangle: move, say, the middle row to the top, or the leftmost column to the right. Then you can go on to create similar patterns on the screen, using the available Atari colors.

Here is a program in Atari BASIC that draws random rectangles on the screen. You can modify it to suit your own tastes. Some of our oldtimers may remember that it appeared in the Spring 1982 issue of the Atari Connection.

```
Set the graphics mode with:
5 GRAPHICS 7+16

The next statement produces a SETCOLOR
instruction that picks a random color
register between 0-4, sets it to a random
color value 0-15, and selects a random
intensity 0-15. The COLOR generated is a
random value 0-4.
10 SETCOLOR RND(1)*4, RND(1)*15, RND(1)*15:
COLR=RND(1)*4

Then pick an X value between 0-159.
15 X=RND(1)*159
Set Y to a random value 0-95.
20 Y=RND(1)*95
Make sure the horizontal line stays on the
screen.
30 XSIZE=RND(1)*(159-X)
Ensure that the vertical line is on the
screen.
35 YSIZE=RND(1)*(95-Y)
Draw the rectangle.
40 GOSUB 1000
Go back and do it again.
50 GOTO 10
```

In the final program, this line does nothing.
60 GOTO 60

Here is the Draw Rectangle routine. It sets the draw color, plots the upper left hand corner, draws the top line, draws the

right edge, draws the bottom line, draws the left hand edge, and returns.

```
1000 COLOR COLR: PLOT X,Y: DRAWTO X+XSIZE,Y:
DRAWTO X+XSIZE,Y+YSIZE: DRAWTO X,Y+YSIZE:
DRAWTO X,Y: RETURN
```

Atari BASIC also allows you to fill the screen with solid colors, as in this sample program.

```
10 GRAPHICS 5
20 COLOR 1
30 PLOT 70,40
40 SETCOLOR 2,0,0
50 DRAWTO 35,0
60 DRAWTO 34,0
70 POSITION 0,40
80 POKE 765,1
90 XIO 18,#6,0,0,"S:"
```

How do you combine shape and color in three dimensions? The solution in three dimensions is just as simple. The trick lies in the fact that each one of the boxes has SIX faces (four sides plus top and bottom), and the color wheel we used has SIX colors.

So the logical solution is to color the six faces of the solid with the six colors of the color wheel, placing the three primaries around one "pole" of the solid and the secondaries around the other "pole," so that the six colors are in the proper order of the color wheel. If you hold the solid at the poles between the thumb and forefinger, then rotation will bring the six colors into view in order.

I discovered this trick myself some thirty-odd years ago. So if you never heard of it before, you now know the reason: I myself never told you!

The boxes ensure harmonious form and the color wheel ensure harmonious color -- the perfect combination. In the words of Albert Einstein commenting on Corbusier's Modulor: "It is a language of proportion which makes evil complicated and good simple."

Once the boxes have been painted on each side in bright enamels, one can rearrange them in endless combinations. Because one can only see three faces at a time, there is no need for color clashes. Of course, this only works because we paint the outside of the boxes; if we were to paint the six inside walls of a room, then we would see more than three colors at one time and then this scheme would not work. If we did try it, we would have to use muted pastels that would not fight with one another.

Here is an Atari BASIC program to draw colored boxes on the screen using as many as 128 colors. The nub of this program lies in statement 190 which asks for a keystroke from the keyboard, and SETCOLOR in statement 210, which you can modify. The program looks for three keystrokes, one for each face of the cube. As each key is typed (try 5, 6 and 7, for example) a cube will become visible. The result is a three-dimensional representation of a cube on the screen.

If you want to change the shadings, type three more numbers between 0 and 7 and see what happens. Next, for some excitement, type J, K, and L. Once again, you will see the shaded cube, but the color will have changed from gold to more of a magenta. As you can see, luminance values greater than 14 cause the hue to change. Alphabetic keystrokes give other colors.

The program appears in Compute!'s First

Book of Atari, on page 78 under the title "Made In The Shade: An Introduction to Three-Dimensional Graphics on the Atari Computers," as follows:

```

10 REM ** SHADING DEMO
20 GRAPHICS 23
30 OPEN #1,4,0,"K:"
40 FOR I=0 TO 4:SETCOLOR I,9,4:NEXT I
50 XO=48:YO=36
60 COLOR 1
70 FOR I=0 TO 40
80 PLOT XO,YO+I:DRAWTO XO+40,YO+I
90 NEXT I
100 COLOR 2
110 FOR I=1 TO 24
120 PLOT XO+I,YO-I:DRAWTO XO+I+40,YO-I
130 NEXT I
140 COLOR 3
150 FOR I=1 TO 24
160 PLOT XO+40+I,YO-I:DRAWTO XO+40+I,YO+40-I
170 NEXT I
180 FOR I=0 TO 2
190 GET #1,A: REM keypress
200 IF A<48 THEN A=48
210 SETCOLOR I,1,2*(A-48)
220 NEXT I
230 GOTO 180

```

You can modify this program to suit your own purposes.

Years ago I sawed from a piece of four-by-four lumber a set of 27 wooden blocks in the Fibonacci proportions, and colored the six faces in the six colors of the color wheel using bright enamels. (You can also cut out a set of 64 blocks -- 4 * 4 * 4 -- but you will need a mechanical saw to get true edges.) Then I spent hours rearranging the blocks in endless combinations, always keeping the blocks in the correct orientation (for example, blue at the top and yellow facing me).

Because the boxes were cut from a few fundamental dimensions, the pieces always fitted together. I found I could create architectural shapes, could make models of furniture pieces, create decorative boxes, and create mosaic patterns in three dimensions. In fact, everything that the painter Piet Mondrian did in two dimensions I could do almost as well in three dimensions, and in a strictly mechanical fashion.

For many years I thought I could copyright and market my idea, as an instructional tool for children. Perhaps some day I will get around to it, if it is not too much of a hassle and it promises to bring in more money than it costs to develop.

My favorite demo (I will be glad to show it to you) is to put all the green surfaces on the top and the yellow facing, say, east. Then create a small village with the blocks representing the houses in many different shapes. The village should be placed on a heavy sheet of cardboard so that the entire model can be rotated in the sunlight.

As you slowly turn the cardboard sheet, you see the yellow walls that give the appearance of the bright morning sun. A slow quarter turn causes the yellow surfaces to slowly disappear and the bright orange walls to take over, mimicking the noonday sun.

Another quarter turn gradually brings the purple walls into view, representing the late afternoon sunset. A further turn brings the dark blue walls to the fore, symbolizing

the onset of night. One more turn and the yellow walls now herald the arrival of another day.

I always thought that the model, mounted in a store window on a revolving lazy susan turntable, would make the perfect commercial:

Joe Blow's beer is best: MORNING -- NOON -- AFTERNOON -- AND NIGHT!

***** FLEA MARKET RULES *****

In order to clarify the intention of the Executive Committee in sanctioning the use of the BTL lobby before and after monthly meetings for use as a member flea market we publish the following rules:

1. All flea market sellers must be current JACG members.

2. Space is provided on a first-come, first-served basis.

3. Only ORIGINAL programs with ORIGINAL documentation may be sold in the area of software.

4. Hardware of any type may be sold normally without constraint. The Executive Committee reserves the right, however, to limit the physical size and space consumed by such hardware.

5. Flea market business will be conducted only in the lobby and ONLY when the meeting is not in session in the auditorium.

6. The Executive Committee reserves the right to deny or suspend the privilege of flea market usage to any person, member or not, for infraction of these operating rules.

J & H COMPUTERS

Computers & Supplies

We Can Fill All Of Your
Computing Needs

P.O. Box 429
Lanoka Harbor, NJ 08734

Phone (609) 693-5388

Atari Forth Lives!

by Donald Forbes -- JACG

NOISE from NOYES

Mid-year thoughts

or

Where to, ye 8-bit?

D. B. Noyes - JACG

It's mid-year and ATARI's magazine ads tout the ST generation. Increasingly well-received, and apparently marketed with more expertise than the AMIGA (to wit, the editorial in August COMPUTE, which laments the poor marketing job that COMMODORE is doing for the AMIGA, as opposed to the job that the Trameils are doing for the ST [I didn't know that COMPUTE was "Pro" any particular machine!]); the horizon bodes well for ATARI in the 16 bit world. I do not belittle ATARI's success; but it begs the question of whether there will be continuing support for the ATARI 8-biters, of which I am one. Oh yes, I've read the pronouncements in ANALOG and ANTIC (the August ANTIC has 4 (four) 8-bit programs in it) wherein continuing support has been reported on behalf of ATARI, and expounded on behalf of the magazines (28 of 126 pages in ANALOG were non-8 bit devoted). When was the last time you saw an ad (from ATARI) dealing with anything other than the ST? ATARI (based on market research) has re-packaged the 2600 Video Game System and is flooding the large retailers with them - seen any new cartridges for them? My concern is - what's around the corner for the 8-bit machine?

Oh yes, there is a LARGE base of 8-bit ATARIs out there. Software is still being introduced for them. My concern is not for the short term but the near to mid-future. There's not much transportable from 8-bit hardware to the ST (other than some modems and printers; and you can forget the software. Thus a move to the ST is a "cold-turkey" type of situation, one has to forget one's investment in 8-bit and proceed. Economically I'm not prepared for that; and I would assume that there are millions out there that similarly are not ready to take the 16-bit plunge. Far be it from me to stand in the way of technological progress; I'm sure that ATARI is looking at the 32 bit environment right now --- but my fervent hope is that the millions of owners of 8-bit machines are not "left in the dust" of progress.

What then can be done to ensure the longevity of 8-bit support? Well, for one thing, take every opportunity to let dealers, manufacturers and publishers know of your existence. Further, a buying public is recognized - give your favorite ATARI dealer the business. And finally, attend JACG meetings and make your presence known. There is strength in numbers! ATARI rules!

Next in NOISE from NOYES:

Comments and Observations on Some Recent Acquisitions, or, Was it Worth the price?

I assure you, Shree Vandenberg, that all the JACG Forth code works!

Every Forth program in the JACG newsletter will work with the public domain disks #19 and #20 in the club library. As JACG Treasurer, you can tell THAT to the executive committee.

The disks go for about \$5 apiece, but give me a blank disk and I will copy each on both sides for you.

Then you can give a copy to your friend in the restaurant business who thought the ideas in my Forth article on Chop Suey Forth were interesting and would work in his restaurant.

It is a good question, however, whether Forth on the Atari (a computer which was unveiled in December 1979) would be the best way to implement an application for a commercial restaurant. But the code, I assure you, will work. All the articles that appeared on Forth in Analog Computing magazine will also work on the same two disks. You say you have all the back issues of our newsletter. That is all you need to try it out.

Better still, come to the Atari Safari in September for a personal demonstration.

The code contains no errors. I checked and double checked to make positively certain that everything worked, because we have all seen too many programs fail because of sloppy proofreading.

If your friend or anyone else you know does not have all the back issues, here is how they can get started:

1. Take out all the cartridges.
2. Boot disk #20. Disk #19 has some documentation, but most of what you need in on disk #20.

3. When Forth comes up, type

1 WARNING!

which will give you the text of the error messages, instead of the error message number.

4. Type

HEX 30 LOAD

which will put you in hex mode, and invoke load screen 30 which will load the assembler and editor and the decompiler. You can ignore the error messages, which are mostly warnings that a certain procedure has previously been defined.

5. Type

DECIMAL

to get back into decimal mode. This version of Forth defaults to HEX so that you have to reset it to decimal each time you boot the disk (if you forget, you begin to get strange answers to your numerical computations).

6. Now type

VLIST

which will display all the procedures (called "words" in Forth) in the Forth vocabulary which are now in memory.

7. Then type

1 71 INDEX

and you will see a listing of the first lines all the 70 screens (of 1024 bytes) that are on disk #20 which is now in your disk drive.

8. Then type

1 LIST

and then

2 LIST

and so on until you get to 70 LIST, which will display all the screens one at a time. 9. You can display all the screen without halts if you type in this program and then type LISTINGS and hit return:

: LISTINGS 71 1 DO 1 LIST LOOP ;

10. Now you can type a small program (watch the blanks) which will type the word "JACG" 100 times

: JACGLOOP 100 0 DO ." JACG" SPACE LOOP ;

which will execute when you hit return after typing JACGLOOP.

11. If you now type

VLIST

again you will see your definition of JACGLOOP as the first word in the list.

12. If you now type

DECOMP JACGLOOP

you will get a decompilation or disassembly of your program. In fact, you can take any word in the VLIST and DECOMP it; you can even DECOMP DECOMP.

13. If you want to locate JACGLOOP in memory, try typing (note the apostrophe and spaces and decimal point)

' JACGLOOP .

which will give you the memory location (let's say 4567).

14. If you then type

4567 100 DUMP

you will get a memory dump that shows the next 100 bytes of code in memory.

There is no other language and operating system that will (1) let you list all the commands in the language at any time, (2) let you list all your source code with a one-line command, (3) let you decompile any command in the language with one word, (4) locate your object code in memory with a one-word command, (5) give you a memory dump as short or as long as you want, and (6) let you do it all interactively and instantaneously. For free, no less!

Unfortunately, the public domain version of Atari Team Forth is not supported and poorly documented. But for \$27 you can get a supported version (turbo-4th) with 96 pages of documentation and telephone support from the expert who wrote the original Team Forth, Steve Calfee. You can reach him at 884 Cape Diamond Drive in San Jose CA 95133.

To save your code, you need the editor. You can get into EDIT mode by typing 12 UE (which will give you the upper portion or sixteen lines of the 1024-byte block or screen number twelve). Type FORTH to get out of the editor.

To use the editor, refer to the documentation on one of the disks, or go back to the old articles in the JACG newsletter, which explain everything.

If you have any difficulties call me (377-1208) or if I am away on a distant beach ask our own Mary Russomano, who for fun taught a class on Team Forth to her students and can give you a hand.

Best of all, come for a hands-on tutorial on Team Forth and valForth and Turbo-4th at the Atari Safari to be held thanks to Frank Pazel in the bucolic pastoral picturesque rural tranquil sylvan setting of the Mountain Lakes High School and its Auditorium.

And don't miss Art Leyenberger's interesting article on the many languages available on the Atari (including, of course, Forth) that appears in the most recent issue of Analog Computing magazine.

JOKE ?

Home Computer Magazine replaced
by

Home Computer Journal

D.B. Noyes -- JACG

I've been accused at times of having a weird sense of humor, and I like a joke just as much as the next person; but the joke perpetrated on the subscribers of Home Computer Magazine goes beyond absurdity! Last year I subscribed to Home Computer Magazine (I bought their first issue which included ATARI at a news-stand, and thought it worthwhile) for \$25.00 which included 10 issues (two with disk) to be sent in the following 12 months. After having received the first issue of my subscription, nothing was received for several months, until one day I received a letter indicating that HCM had gone "bust", but that if I returned the card included with the letter, Home Computing Journal would honor the remainder of my subscription -- phew! -- a sigh of relief.

I was quite pleased, therefore, to come home from work one day a few weeks ago, to find a large envelope containing (prior to opening) my first copy of HCJ [with disk included]. Great, I thought, I know had 2 issues, 2 disks, and had 8 more issues (w/out disk) to look forward to. I opened the envelope, removed the rather thin HCJ (slightly thicker than the JACG newsletter) and the disk; to my surprise, a letter was also included. My surprise was a short-lived emotion, for, as I read the letter, it was obvious that this disk and HCJ were to be my last -- without supplying HCJ with \$60.00 (a bargain off of their normal \$75.00) for the next 4 issues only! To extend the absurdity to 12 months at the normal subscription fee, I would be up to \$225.00 dollars a year! That is more than enough for 1 year (w/disk) for both ANTIC and ANALOG! And HCJ is not even ATARI specific. Come on you folks out at HCJ, you're going to have to better than that; I'm not the most keen business mind around, but this has a certain scent to it. I think I'll invest my subscription money elsewhere.

By the way, if one includes front and back cover, table of contents, and letters to the editor, there are less than 18 pages dedicated to ATARI (and I was generous in my counting); if you run the single issue

price of \$25.00 against 18 pages and a disk with 7 programs (of varying degrees of substance) on it, I'm sure that you can reach your own conclusions regarding whether you should subscribe or not. For myself, I can't get by the cost/benefit hurdle. Even if I could, lightning does strike twice in the same place, we all know that (right Scott?). If it did, would we be looking at a Home Computer Newsletter for \$50.00 an issue? Ha, Ha.

GIVE A BIT!!!

Contribute to the Newsletter this month.

Remember, receiving the JACG Newsletter
is just one of the many benefits of being a
member of JACG.

JACG
MAIL TO: Membership Chairman
Joseph Kennedy
126 Jupiter St.
Clark, NJ 07066

DUES:

US (inc. APD, FPD, etc.), Mexico and Canada - \$20.00
First class mailing of newsletter add \$6.00

Foreign memberships - \$30.00 (U.S. CURRENCY)

JACG
MEMBERSHIP APPLICATION/RENEWAL
RENEWAL _____ NEW MEMBER _____ FORMER MEMBER _____

Name _____ Member # _____

Address _____

City/State/Country _____ ZIP: _____

Home Phone Number _____

Date _____ 1st CLASS MAIL _____ 3rd CLASS MAIL _____

*** ***** **

BULLETIN BOARD

24 HOURS/DAY

201-549-7591

JACG Newsletter Advertisements

RETAILERS - MANUFACTURERS - VENDORS

How would you like to reach a targeted audience of over 700
ATARI computer users? This newsletter has a press run of 800
per month, is read by members and non-members alike, and is
sent to over 60 other ATARI User Groups across the U.S. and in
several other countries.

Advertising is available on a first-come and space-available
basis. Camera ready copy, accompanied by payment, must reach
the Editor by the 20th day of the month preceding publication.
JACG reserves the right to make decisions concerning the
placement of ads within the Newsletter and editing or rejecting
advertisements deemed unsuitable.

Advertising Rates

Full page (7-1/2 x 9) ... \$48.00
Half page \$25.00
Quarter page \$18.00

Discount rates available upon request.

Contact: Charles Silverstein
356 Grand Avenue Apt #9A
Leonia, NJ 07605
(201) 947-6865 (Home)
(201) 945-3000 X-291 (Business)

Membership Renewal

Take a moment and look at your mailing label on a recent issue
of the JACG newsletter. Check the bottom right hand corner
following "Last Issue:". This is the month/year when your
membership expires. Try to renew at least one month early. This
helps us keep our book keeping in order and avoids your missing
any issues of the newsletter.

There are two easy ways to renew:

1. Fill out a membership renewal form in the front lobby before
our monthly meeting and present it with \$20 (in cash or check) to
the Treasurer. Add \$6 for first class mailing of the newsletter.

2. Copy the information on your mailing label and send, with
your remittance, to:

Joseph Kennedy, Membership Chairman
126 Jupiter Street
Clark, NJ 07066

>>>CHECK YOUR LABEL<<<
>>>TODAY!<<<

TRADING POST

Trading Post is a service for JACG members who
wish to sell or swap items of any type. There is
no charge for this service. Material must reach
the Editor by the 20th of the month to be
considered for inclusion in the following month's
Trading Post. No commercial services or items
will be accepted.

>>>>>>>><<<<<<<<

WANTED: Child-resistant ATARI 400
will pay up to \$20.00 see
Bill Martin Pres. JACG

 # J A C G #
 # #
 # JERSEY ATARI COMPUTER GROUP #
 # #
 # 8 CRESCENT RD. #
 # #
 # PINE BROOK, NEW JERSEY 07058 #
 # #
 #####

 # BULK RATE #
 # U.S. POSTAGE #
 # PAID #
 # PINE BROOK, NJ #
 # PERMIT #56 #
 #####

12/31/86 3RD CLASS
 B.S. SEIP
 120 PLEASANTVIEW AVE
 NEW PROVIDENCE, NJ 07974
 USA 0463 JACG 1286

JACG NEWSLETTER - VOLUME 5, NUMBER 12

August 1986

J A C G EXECUTIVE COMMITTEE

President: William Martin

P. O. Box 356
 White House Sta., NJ 08889
 (201) 534-6349

Vice Pres.: Scott Brause

12 Bradford Road
 Edison, NJ 08817
 (201) 549-0878

Secretary: Robert Mulhearn

8 Crescent Road
 Pine Brook, NJ 07058
 (201) 575-8067

Treasurer: Shree Vandenberg

826 2nd Place
 Plainfield, NJ 07060
 (201) 753-2416

Programs: Jerry Frese

118 Shady Lane
 Randolph, NJ 07869
 (201) 895-3736

Librarian: Don Ursem

37 Clover Lane
 Randolph, NJ 07869
 (201) 895-2522

International Chairman:

Barry Weissman
 125 Runyon Avenue
 Piscataway, NJ 08854
 (201) 885-5161

Membership Chairman:

Joseph Kennedy
 126 Jupiter Street
 Clark, NJ 07066
 (201) 499-0399

BB5 Sysop: Scott Brause

12 Bradford Road
 Edison, NJ 08817
 (201) 549-0878

Pres. Emeritus: Arthur Leyenberger

40 Lawrence Road
 Parsippany, NJ 07054
 (201) 887-2861

Advertising: Chuck Silverstein

356 Grand Avenue Apt 9A
 Leonia, NJ 07605
 (201) 947-6865

Disk Librarians:

Richard Lamb
 Dennis Hoskins
 Ken McCollough

Mail Order Librarian:

Ken McCullough
 33 Parrott Mill Road
 Chatham, NJ 07928
 (201) 635-9182

Sales Manager: Gary Gorski

48 Read Street
 PO Box 5286
 Newark, NJ 07105
 (201) 344-0289

The Jersey Atari Computer Group (JACG) is an independent, informal organization of ATARI computer users. It is not affiliated with Atari or any other commercial enterprise. Opinions expressed in this publication reflect only the views of the individual author, and do not necessarily represent the views of JACG. Material in this Newsletter may be reprinted by other Atari User Groups, provided the author (if applicable) and JACG are given credit. Only original work may be reprinted. Questions concerning reprinting should be addressed to the Editor.